

REMARKS

Applicants request favorable reconsideration and allowance of the above-identified application.

Claims 1-14 and 21-28 are now pending in this application, with Claims 1-4, 7, 8, 11, 21, and 24 being independent. By this Amendment, Applicants have added new Claims 21-28.

Claims 1-14 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-8 of copending Application No. 09/871,630, and over Claims 1-10 and 13-15 of copending Application No. 09/411,632.

Applicants acknowledge the provisional rejections of Claims 1-14 under obviousness-type double patenting; however, Applicants respectfully request that such provisional rejections be held in abeyance, as not yet ripe, until allowable subject matter is identified in this application.

Claims 1-14 stand rejected under 35 U.S.C. § 103 over U.S. Patent No. 5,496,616 (Harris) in view of U.S. Patent No. 5,208,700 (Harris, et al.). Applicants traverse this rejection.

In one aspect, as variously recited in independent Claims 1-4, 7 and 8, Applicants' invention relates to a diffractive optical element which includes (i) a first diffraction grating and an alignment pattern formed on a first substrate, and (ii) a second diffraction grating and an alignment pattern formed on a second substrate. The gratings are

accumulated, with the alignment pattern formed on the first substrate *engaging* the alignment pattern formed on the second substrate.

In a similar aspect, as recited in independent Claim 11, Applicants' invention relates to a method of manufacturing a diffractive optical element. The method includes a step of preparing a mold having (i) an alignment pattern to be *engaged* with an alignment pattern formed on a substrate having a first diffraction grating pattern, and (ii) a second diffracting grating pattern. The first diffraction grating pattern and the second diffraction grating pattern are positioned by engaging the alignment pattern of the substrate with the alignment pattern of the mold.

The Office Action cites the Harris document as describing the use of alignment markings to align two binary diffractive elements. However, that document does not describe that the alignment markings engage each other.

The Office Action cites the Harris, et al. patent as describing alignment markings that engage each other, based on the disclosure at column 3, line 65, to column 4, line 5, of that patent. Specifically, the Office Action indicates that the cited portion of that patent describes engaging recesses which correspond to alignment marks of a lens and lens cover. Applicants, however, respectfully disagree. That portion of the Harris, et al. patent merely indicates that a lens cover is brought into alignment with a grating lens inside a recess of a substrate, and that alignment marks may be used to achieve such alignment. Applicants submit that the Harris, et al. patent does not describe alignment marks which themselves engage each other.

Accordingly, Applicants submit that the Harris and Harris, et al. patents, taken alone or in combination, fail to disclose or suggest at least the features of an alignment pattern formed on a first substrate engaging an alignment pattern formed on a second substrate, as generally recited in independent Claims 1-4, 7 and 8. Applicants also submit that those documents, taken alone or in combination, fail to disclose or suggest positioning a first diffraction grating pattern on a substrate with a second diffraction grating pattern by engaging an alignment pattern of the substrate with an alignment pattern of a mold having the second diffraction grating pattern, as recited in independent Claim 11.

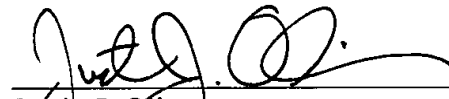
Applicants also submit that new independent Claims 21 and 24 are allowable for reasons similar to those discussed above with respect to the previously pending independent claims.

Thus, Applicants submit that the independent claims are allowable over the cited documents, and request withdrawal of the rejection under 35 U.S.C. § 103.

The remaining claims in the present application are dependent claims which depend from the independent claims discussed above, and thus are patentable over the applied documents for reasons noted above with respect to those independent claims. In addition, each recite features of the invention still further distinguishing it from the applied documents. Applicants request favorable and independent consideration thereof.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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